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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,629	02/28/2001	Atsushi Matsunaga	13006.077	2515

7590 01/25/2005  
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EXAMINER

JUSKA, CHERYL ANN

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/720,629

Applicant(s)

MATSUNAGA ET AL.

Examiner

Cheryl Juska

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 14-22 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's amendment filed November 8, 2004, has been entered. Claims 14, 16, 18, 19, and 20 have been amended as requested. The pending claims are 14-21.

Said amendment is sufficient to withdraw the 112, 2<sup>nd</sup> rejection set forth in sections 4-6 of the last Office Action. Additionally, said amendment is sufficient to withdraw the 102/103 rejection set forth in section 8 and the 103 rejection set forth in section 9 of the last Office Action.

However, a new rejection necessitated by said amendment is set forth below.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 765 959 issued to Nagaoka et al. in view of *Poly Lactic Acid* by Tsuji et al.

Applicant has amended the claims to limit the one of the lactic acid copolymers to having a copolymerization mole ratio of 92 or more to less than 100 and the other having a copolymerization mole ratio of more than 0 to less than 8. Nagaoka teaches copolymers of L-lactic acid and D-lactic acid having a L/D mole ratio of 90/10 (Example 8). However, according to applicant's disclosure of the Japanese reference (Amendment, pages 7-9), Tsuji teaches mole

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ratios of D-lactic acid and L-lactic acid within the range of 0-8/92-100 or 92-100/0-8 have higher crystallinity and melting temperature. Note Figure 2-27 of Tsuji.

Hence, it would have been readily obvious to one skilled in the art to employ the claimed mole ratio since it is known in the art that said ratio improves crystallinity and melt temperature, which would improve the thermal stability of a fabric made from the polylactic acid fibers of Nagaoka. Therefore, claims 14, 16, and 20 are rejected.

With respect to claims 18 and 19, Nagaoka teaches a nonwoven embodiment made from bicomponent filaments comprising a first component of a copolymer of L-lactic acid/glycolic acid and a second component of a copolymer of L-lactic acid/D-lactic acid (Example 27). The first component has a lower melting point than the second component. Thus, the filaments of the copolymer of L-lactic acid/D-lactic acid are bonded by a resin of another polymer (i.e., first component of the bicomponent filament). Therefore, claims 18 and 19 are also rejected as being obvious over the cited prior art.

With respect to claims 15, 17, and 21, Nagaoka fails to teach filaments of a first D- and L-lactic acid copolymer and filaments of a second D- and L-lactic acid copolymer that are bonded by another polymeric resin. However, the use of binders is well known in the art of nonwovens. Applicant is hereby given Official Notice of this fact. Hence, it would have been obvious to one skilled in the art to employ an additional binder by means of another fusible fiber or by a liquid or powder adhesive binder in order to increase the strength and dimensional stability of the biodegradable nonwoven fabric. Therefore, claims 15, 17, and 21 are also rejected.

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4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Nagaoka and Tsuji references as applied to claims 14-21 above, and further in view of EP 597 427 issued to Taniguchi et al.

Although Nagaoka does not explicitly teach tufting the inventive nonwoven fabric to make a carpet, it is well known in the art to employ nonwoven fabrics as primary backings for tufted carpets. Applicant is hereby given Official Notice of this fact. Additionally, it is known in the art to employ biodegradable nonwovens for carpets so that said carpet will degrade when buried in a landfill. See Taniguchi, page 2, lines 16-26. Thus, it would have been obvious to one of ordinary skill in the art to employ the biodegradable nonwoven of Nagaoka for a primary carpet backing as is known in the art and evidenced by Taniguchi. Motivation to do so would be to expand the number of applications of the Nagaoka nonwoven and to make waste carpet more environmentally friendly. Therefore, claim 22 is rejected as being obvious over the prior art.

#### ***Response to Arguments***

5. Applicant's arguments are responded to only to the extent that said arguments pertain to the new rejection.

6. Specifically, applicant argues the recitation occurring in the body of the claim that limits the base cloth to being "for tufted carpet." Applicant believes that since this limitation appears in the body of the claim it should be afforded patentable weight. The examiner respectfully disagrees since said limitation is merely a recitation of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the

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prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). It is believed that said limitation is merely descriptive of intended use and does not add any structure to the base cloth. Therefore, applicant's argument is unpersuasive.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Juska whose telephone number is 571-272-1477. The examiner can normally be reached on Monday-Friday 10am-6pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached

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at 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
CHERYL A. JUSKA  
PRIMARY EXAMINER

cj  
January 24, 2005